

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

Paper No.: _____

DATE : 03/15/06

TO SPE OF : ART UNIT 3762

SUBJECT : Request for Certificate of Correction for Appl. No.: **10/085386** Patent No.: **6775573**

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3762

Art Unit

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 6,775,573

APPLICATION NO.: 10/085,386

ISSUE DATE : August 10, 2004

INVENTOR(S) : Eleanor L. Schuler, Claude K. Lee

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 6, lines 58 and 61, "respiratory" should be changed to --gastrointestinal--.

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vided by the device 10' during treatment should not exceed 20 volts nor 2 amps for each signal.

The computer 20 is used to store the unique waveform signals, which are complex and unique to each organ and function of such organ or organ system. It is a waveform signal(s) selected from the stored library of waveforms in the computer 20 that is transmitted to the control module 14' and used for treatment of a patient.

The waveform signals, and their creation, are described in greater detail in U.S. patent application Ser. No. 10/000005, filed on Dec. 4, 2001, and entitled "Device and Method to Record, Store, and Broadcast Specific Brain Waveforms to Modulate Body Organ Functioning," the disclosure of which is incorporated herein by reference. Such application contains representative types of waveforms that are also operative in the control of human or animal gastrointestinal processes. Such waveforms or any combination of segments of the waveforms presented in the above mentioned patent application are representative of the kinds of signals operating with the neuron circuits emanating from the medullopontine region of the brain. Such waveforms can be used to modulate either afferent or efferent nerves that play a part in the control or fine-tuning of gastrointestinal processes. Such waveform signals are similar to those naturally produced by the brain stem structures for modulating gastrointestinal processes, as described in detail in the immediately above-identified incorporated application.

The invention further includes a method, as shown in FIG. 3, for using the device 10, 10' to control autonomic nerve stimulation of the gastrointestinal tract. The method begins at step 22 by selecting one or more stored coded electrical waveform signals from a menu of cataloged waveform signals. The waveform signals selected control and stimulate gastrointestinal functions. Such waveform signals are similar to those naturally produced by the brain stem structures for controlling and stimulating gastrointestinal processes. Once selected, the waveform signals may be adjusted, in step 24, to perform a particular function in the body. Alternatively, if it is decided that the waveform signals do not need to be adjusted, step 24 is skipped and the process proceeds directly with step 26. At step 26, the waveform signal is transmitted to the treatment member 12, 12' of the device 10, 10'.

Upon receipt of the waveform signals, the treatment member 12, 12' broadcasts the waveform signals to the appropriate location, as shown in step 28. The device 10, 10' utilizes appropriate waveform signals to stimulate or control gastrointestinal action via conduction or broadcast of electrical signals into selected nerves or components of gastrointestinal system. It is believed that target organs can only uniquely "hear" their own individual waveform. As a result, the body is not in danger of having one organ perform the function of another organ simply because the first organ received the second organ's waveform.

In one embodiment of the invention, the process of broadcasting by the treatment member 12, 12' is accomplished by direct conduction or transmission through unbroken skin in a selected appropriate zone on the neck, head, or torso. Such zone will approximate a position close to the nerve or nerve plexus onto which the signal is to be imposed. The treatment member 12, 12' is brought into contact with the skin in a selected target area that allows the transport of the signal to the target nerve. Otherwise, connections are made internally at appropriate points.

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In an alternate embodiment of the invention, the process of broadcasting the waveform is accomplished by direct conduction via attachment of an electrode to the receiving nerve or nerve plexus. This requires a conventional surgical intervention as required to physically attach the electrode to the selected target nerve.

In yet another embodiment of the invention, the process of broadcasting is accomplished by transposing the waveform into a seismic form where it is sent into a region of the head, neck, or torso in a manner that allows the appropriate "nerve" to receive and to obey the coded instructions of such seismic signal. The treatment member 12, 12' is pressed against the unbroken skin surface using an electrode conductive gel or paste medium to aid conductivity.

Various features of the invention have been particularly shown and described in connection with the illustrated embodiments of the invention. However, it must be understood that these particular products, and their method of manufacture, do not limit but merely illustrate, and that the invention is to be given its fullest interpretation within the terms of the appended claims.

We claim:

1. A method for controlling autonomic nerve stimulation of the gastrointestinal tract comprising the steps of:

- a. selecting from a storage area one or more waveforms generated in the body and carried by neurons in the body;
- b. transmitting or conducting the selected waveforms to a treatment member in contact with the body; and
- c. broadcasting the selected waveforms from the treatment member to an organ in the body.

2. The method according to claim 1, in which step "a" further includes selecting said waveforms from a storage area in a computer.

3. The method according to claim 1, in which step "b" further comprises transmitting the selected waveforms remotely to the treatment member.

4. The method according to claim 1, in which step "b" further comprises transmission of the selected waveforms.

5. An apparatus for controlling autonomic nerve stimulation of the gastrointestinal tract, comprising:

- a. a source of collected waveforms indicative of body organ functioning;
- b. a treatment member in direct contact with the body;
- c. means for transmitting one or more of the collected waveforms to the treatment member; and
- d. means for broadcasting the collected waveforms from the treatment member to a body organ to stimulate organ function.

6. The apparatus according to claim 5, in which said transmitting means includes a digital to analog converter.

7. The apparatus according to claim 5, in which said source comprises a computer having collected waveforms stored in digital format.

8. The apparatus according to claim 7, in which said computer includes separate storage areas for collecting waveforms of different respiratory functional categories.

9. The apparatus according to claim 5, in which the treatment member comprises an antenna for broadcasting respiratory signals.

10. The apparatus according to claim 5, in which the treatment member comprises an electrode.

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